

WHAT IS CLAIMED IS:

1. A vulcanizable rubber composition comprising:
 - (A) 100 parts by weight of at least one diene-based elastomer;
 - 5 (B) from about 1 to about 60 phr of a starch/synthetic plasticizer composite; and
 - (C) from about 0.1 to about 10 phr of an adduct of maleic anhydride and polybutadiene.
- 10 2. The rubber composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene has a number average molecular weight of from about 1,500 to about 10,000.
- 15 3. The rubber composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene has a number average molecular weight of from about 2,500 to about 7,500.
- 20 4. The rubber composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene has an average of from about 2 to about 20 functional groups based on maleic anhydride per polymer chain.
- 25 5. The rubber composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene has an average of from about 3 to about 12 functional groups based on maleic anhydride per polymer chain.
6. The rubber composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene is present in a range of from about 0.4 to about 8 phr.
- 30 7. The rubber composition of claim 1, wherein said starch/synthetic plasticizer composite comprises starch composed of amylose units and amylopectin units in a ratio of about 15/85 to about 35/65, and has a softening point according to ASTM No. D1228 in a range of about 180°C to about 220°C, provided, however, that

said starch/plasticizer composite has a softening point in a range of about 110 to about 160°C according to ASTM No. D1228.

8. The rubber composition of claim 1, wherein said starch/synthetic plasticizer composite comprises a plasticizer that is a liquid at 23°C and is selected from at least one of poly(ethylenevinyl alcohol), cellulose acetate and plasticizers based, at least in part, upon diesters of dibasic organic acids and forms said starch/plasticizer composite having a softening point in a range of about 110 to about 160°C when combined with said starch in a weight ratio in a range of about 1/1 to 10 about 3/1.

9. The rubber composition of claim 1 wherein said starch/synthetic plasticizer composite comprises a plasticizer having a softening point of less than the said starch and less than 160°C and is selected from at least one of poly(ethylenevinyl alcohol), cellulose acetate and copolymers, and hydrolyzed copolymers, of ethylene-vinyl acetate copolymers having a vinyl acetate molar content of from about 5 to about 90, alternatively about 20 to about 70, percent, ethylene-glycidal acrylate copolymers and ethylene-maleic anhydride copolymers.

20 10. The rubber composition of claim 1, wherein said at least one diene elastomer is selected from the group consisting of homopolymers of isoprene and 1,3-butadiene and copolymers of isoprene and/or 1,3-butadiene with a aromatic vinyl compound selected from at least one of styrene and alphamethylstyrene.

25 11. The rubber composition of claim 1, further comprising from about 20 to about 85 phr of carbon black.

12. The rubber composition of claim 1, further comprising from about 10 to about 85 phr of silica.

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13. A tire having at least one rubber component wherein said component is comprised of the rubber composition of claim 1.

14. The tire of claim 13, wherein said component is a tire tread.
15. The composition of claim 1, wherein said at least diene-based elastomer is selected from the group consisting of natural or synthetic cis 1,4-polyisoprene rubber, 3,4-polyisoprene rubber, styrene/butadiene copolymer rubbers, isoprene/butadiene copolymer rubbers, styrene/isoprene copolymer rubbers, styrene/isoprene/butadiene terpolymer rubbers, cis 1,4-polybutadiene rubber and medium to high vinyl polybutadiene rubber having a vinyl 1,2- content in a range of about 15 to about 85 percent and emulsion polymerization prepared butadiene/acrylonitrile copolymers.

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16. The composition of claim 1, wherein said adduct of maleic anhydride and polybutadiene has a glass transition temperature in a range of from about -70°C to about 0°C.